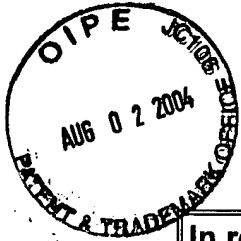


PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES



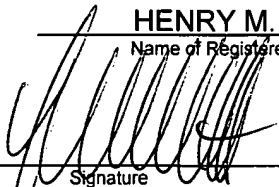
Docket No.: THEURER-21

In re Application of:)
JOSEF THEURER et al.)
Appl. No.: 09/501,251) Examiner: Jeffrey R. West
Filed: February 10, 2000) Group Art Unit: 2857
For: METHOD OF SURVEYING A TRACK)

REPLY BRIEF

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S I R:

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450", on <u>July 29, 2004</u> .	
(Date)	
 Signature	<u>HENRY M. FEIEREISEN</u> Name of Registered Representative
	<u>7-29-2004</u> Date of Signature

This reply brief is filed in triplicate and in response to the Examiner's Answer, mailed June 24, 2004.

REMARKS

In the Examiner's Answer, the Examiner commends in several places of the Answer the accuracy of the GPS system and the desire to replace the "inaccurate" method of Plasser with GPS. For example, the Examiner noted on page 7, lines 12, 13 that "*GPS has become a well known, **accurate**, and convenient system for determining the **exact** position of devices*" [emphasis added]. While the Examiner may wish that to be the case, it is far from correct. As is generally known, GPS can determine a location to an accuracy of about 6 meters in 95 % of the time. Even the more recent Wide Area Augmentation System (WAAS) results in a positional accuracy at best of 3 meters. At the time of the invention was made, while the capability of a GPS system to provide position fixed was within 10 meters, the GPS signals were degraded to have an accuracy of about 100 m.

As a result of the inaccuracy that has been incorporated in a GPS system, a person skilled in the art would not consider a GPS system, such as the one described in Ingensand, as an appropriate tool for surveying a track, as track surveying requires accuracy of 1 millimeter. Note also that Ingensand appears to be aware of the inaccuracy of GPS by suggesting to carry out repeated measurements to improve the accuracy (col. 3, lines 8-20).

Recognizing the shortcomings of GPS while also being aware of its benefits, appellant contemplated a track surveying method which exploits GPS by mounting a GPS receiver on the stationary measuring vehicle and determining initial position coordinates relative to a fixedly installed GPS reference station

whose coordinates are known within a terrestrial coordinate system. Only in this way, is it possible to use GPS measurement with required accuracy and on the basis of the terrestrial coordinate system.

In the Answer, the Examiner also asserted on page 5, first paragraph that Plasser teaches in col. 2, lines 27-32 a time-consuming inaccurate method, and that Ingensand teaches in col. 1, lines 21-30 a method with increased accuracy. Appellant fails to find any support for these assertions and considers these assertions mere speculation. The concerned passage in Plasser does not convey anything that would relate to an inaccurate method involved, and the concerned passage in Ingensand merely relates to "geodetic accuracy", i.e. an accuracy which, as stated above, is inadequate for track surveying.

On page 10, third paragraph of the Answer, the Examiner makes the sweeping statement that "*Ingensand teaches GPS receiver usage for determining an initial position*". Appellant fails to find any support in the record for such a statement.

For the foregoing reasons and the reasons stated in Appellant's Brief of Appeal, it is respectfully requested to overrule the Examiner's rejections.

Respectfully submitted,

By: 

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